REMARKS

Present Status of the Application

The Office Action rejected claims 1-20. Specifically, the Office Action rejected claims 1-20 under 35 U.S.C. 102(e) as being anticipated by Huang et al. (U.S. Patent 6,440,803, hereinafter Huang) or Shiau (U. S. Patent 6,372,580). Applicants have added claims 21-22. Claims 1-22 remain pending in the present application, and reconsideration of those claims is respectfully requested.

Discussion of Claim Rejections under 35 USC 102

The Office Action rejected claims 1-20 under 35 U.S.C. 102(e) as being anticipated by Huang or Shiau. Applicants respectfully traverse the rejections for at least the reasons set forth below.

As shown for example in FIG. 3F and FIG. 4F, the window 234 or 236 expose the position to be performed with coding implantation. The block strips 222 and the block bumps 226 are used as the self-aligned mask, so as to implant ions into the substrate at the coding region 238. As shown in FIG. 5F at another cross-sectional view, the block strips 222 filled between the block bumps 226. In other words, the pre-coding region 228 is defined by the block strips 222 filled and the block bumps 226. The coding region 238 basically is not under the block strips 222 filled and the block bumps 226.

In re Huang, as noted by the Office Action, the coding regions 3256a and 326b are formed

under the spacer 312a, 312b. In Figs. 3D and 3E, the tilt implantation is necessary to form the coding region 326a, 326b through the opening. The buried bit line 316 is formed between the conductive strip 304a.

With respect to newly added claims 21-22, for at least the same foregoing reasons, the coding implantation is further defined as the substantially perpendicular implantation, which is further distinguishable over the tilt implantation disclosed by prior art.

It is clear that Huang failed to disclose the features recited in independent claims 1 and 10, and further in dependent claims 2-9 and 11-22.

In re Shiau, in Fig. 11B, the coding function is achieved by setting different thickness of gate oxide. The cell with thick TOX is off state cell and the thin GOX is on state cell (col. 5, lines 5-12). It is believed that the coding mechanism of Shiau does not disclose the present invention as recited in independent claims 1 and 10 and further in dependent claims 2-9 and 11-20.

For at least the foregoing reasons, Applicant respectfully submits that independent claims 1 and 10 patently define over the prior art references, and should be allowed. For at least the same reasons, dependent claims 2-9 and 11-22 patently define over the prior art references as well.

CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 1-22 of the invention patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,

Date : June 14, 2004

Belinda Lee
Registration No.: 46,863

Jianq Chyun Intellectual Property Office
7th Floor-1, No. 100
Roosevelt Road, Section 2
Taipei, 100
Taiwan
Tel: 011-886-2-2369-2800
Fax: 011-886-2-2369-7233
Email: belinda@jcipgroup.com.tw
Usa@jcipgroup.com.tw